

State of WAPA

Building Bridges

Tracey A. LeBeau
Administrator and CEO

Annual Customer Meeting
Feb. 8, 2023



Agenda - 2023 WAPA Customer Meeting



Current Operating
Landscape



Cybersecurity
Update



Power Forward
2030



State of WAPA
Regions



Transmission
Infrastructure
Program Update



Finance Update



Small Group
Discussions



Open House



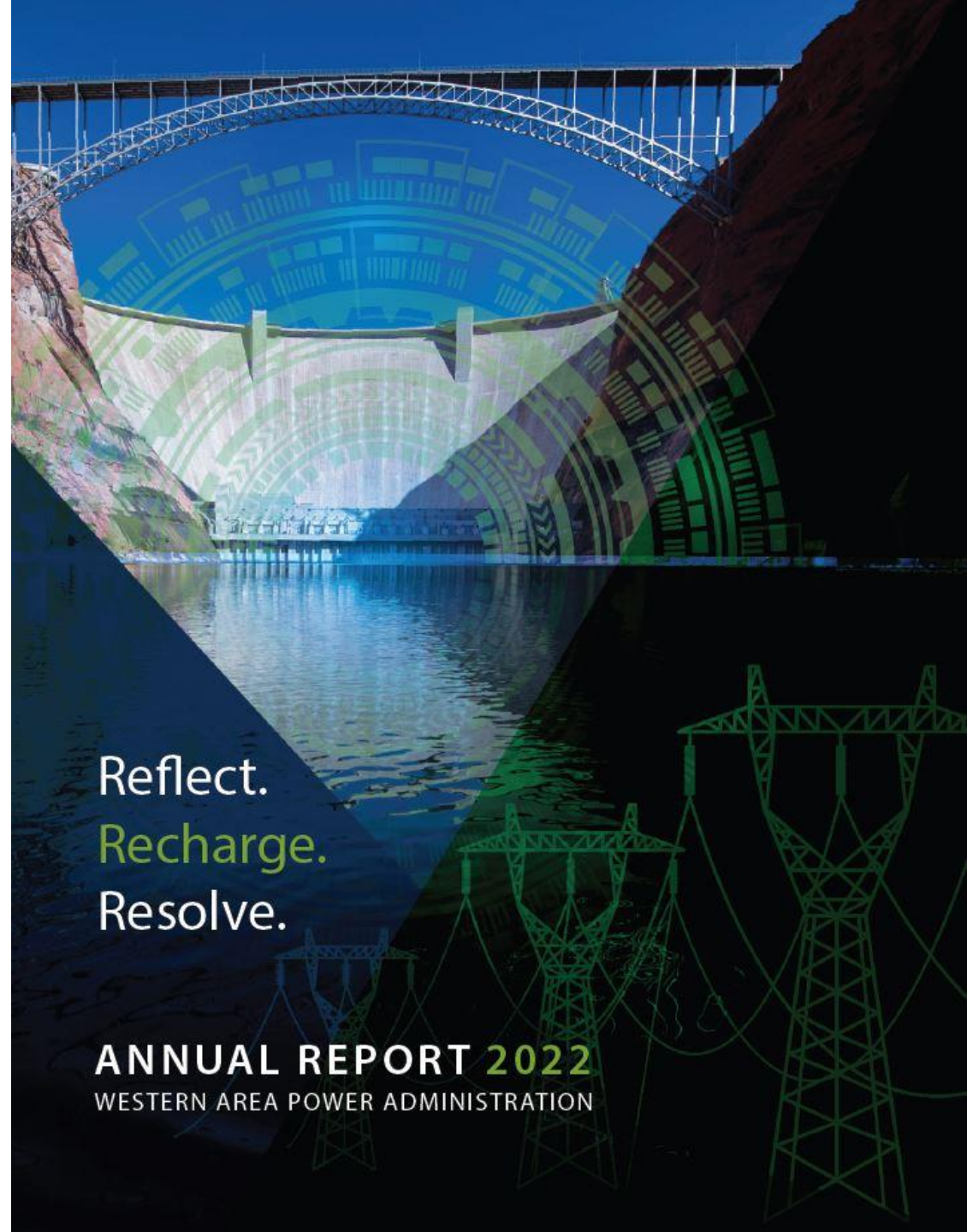
Building Bridges

- Cultivating connections
- Creating opportunities
- Adapting to a changing landscape



Adapting to a changing landscape

- \$8-10 million annual savings in Central Valley Project
- Estes-to-Flatiron transmission line rebuild
- Crow Tribe easement - Lovell-to-Yellowtail rebuild
- Storm response in South Dakota
- One-year milestone- real-time markets
- Udall Foundation to facilitated formal discussions



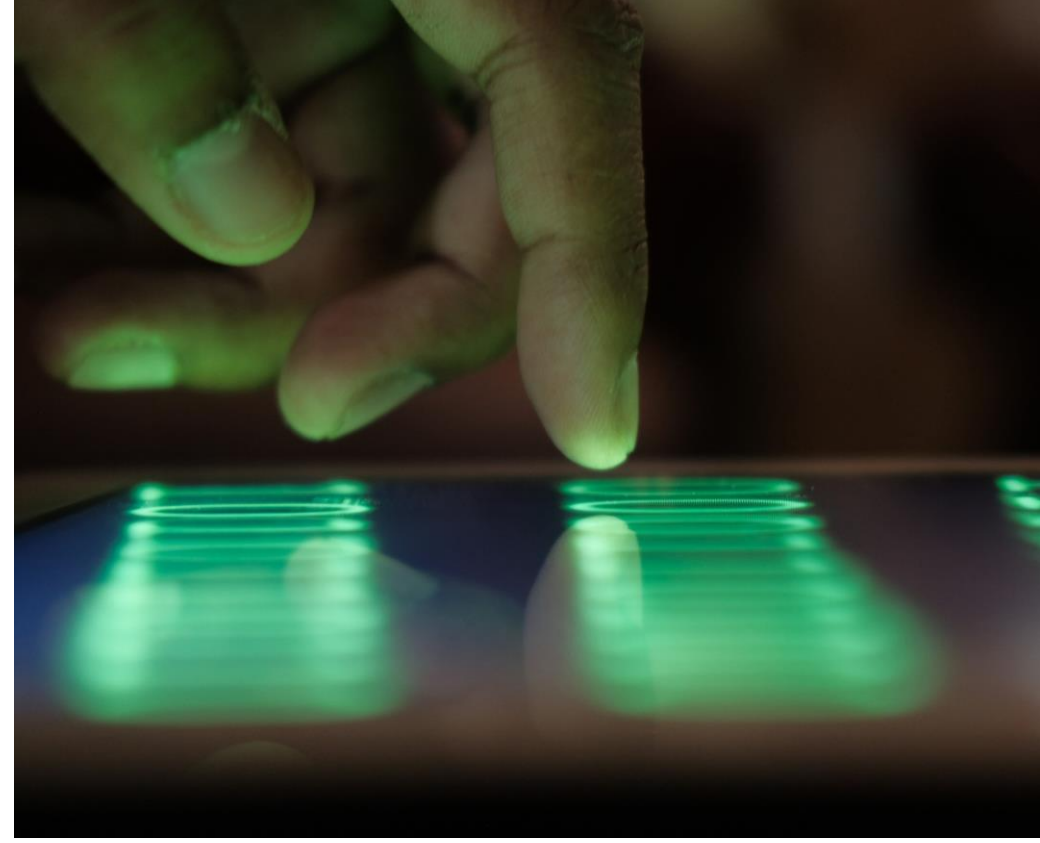
Reflect.
Recharge.
Resolve.

ANNUAL REPORT 2022
WESTERN AREA POWER ADMINISTRATION

Megadrought

- Hydropower 66% of average
- Modified CRSP rates
- PPW - \$85m transferred to CRSP Basin Fund



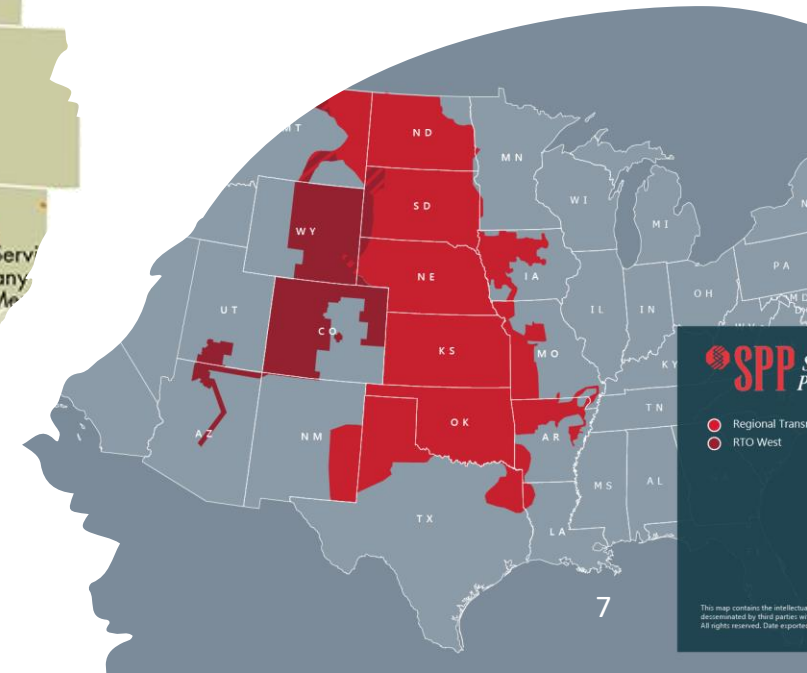
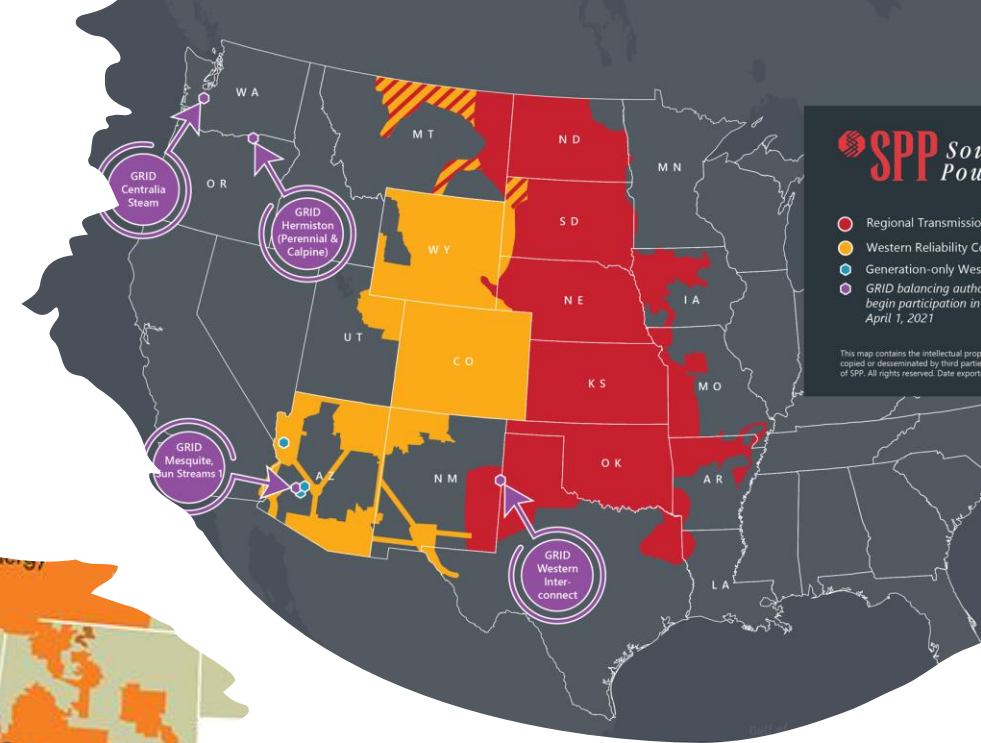
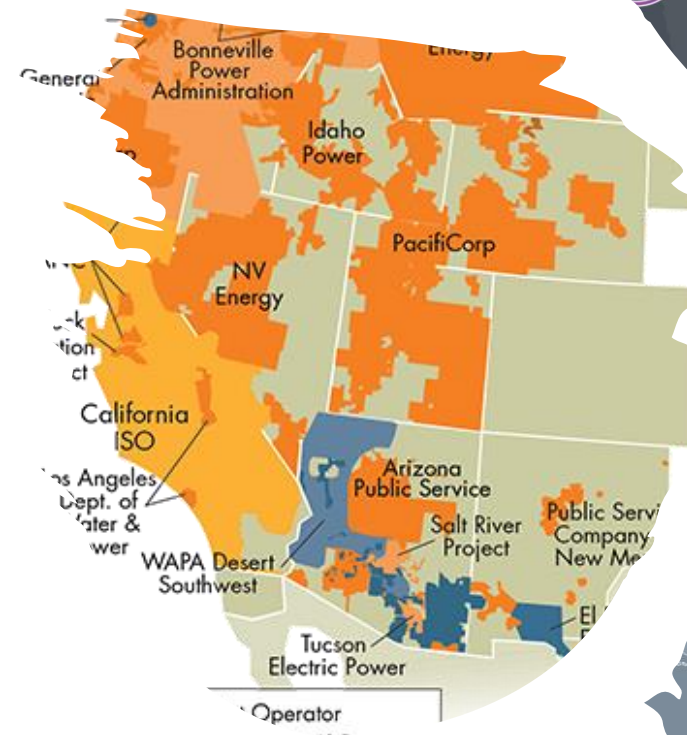


Physical and Cyber Security



Energy markets

- Several emerging proposals related to markets activities
- All regions participating in day-ahead market development opportunities





Location/Title
Photo by: David Darmody
Photo by: David Darmody
Location/Title

Power Forward 2030

Strategic Plan 2023 - 2030

- Safeguard a sustainable energy future
- Modernize the grid
- Invest in our employees



Cultivating connections

- 30% WAPA employees physically present
- Hybrid work requires flexible mindset





Sustainability Goals 2027-2050



Q&A Session

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[@westernareapowr](https://twitter.com/westernareapowr)



[Western-area-power-administration](https://www.linkedin.com/company/western-area-power-administration)



[WesternAreaPower1](https://www.youtube.com/channel/UCWesternAreaPower1)



[westernareapower](https://www.instagram.com/westernareapower)



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Current Operating Landscape

Tina Ko

Executive Vice President & Chief Operating Officer

Annual Customer Meeting

Feb. 8, 2023



**'The brink of disaster': 2023 is a critical year
for the Colorado River as reservoirs sink toward
'dead pool'**
-CNN

**America's electric
utilities facing
transformer
shortage crisis**
-The Hill

**HOW A
TRANSFORMER
SHORTAGE
THREATENS THE
GRID**
-E&E NEWS

**Record-breaking cold, life-
threatening wind chills
plunge 150 million
Americans into deep freeze**
-Fox Weather

**'Turn off nonessential
power now': Emergency
alert helps California
avert blackouts**
-KTLA

**YOSEMITE'S GIANT
SEQUOIAS: WILDFIRE
THREATENS
WORLD'S LARGEST
TREES**
-BBC

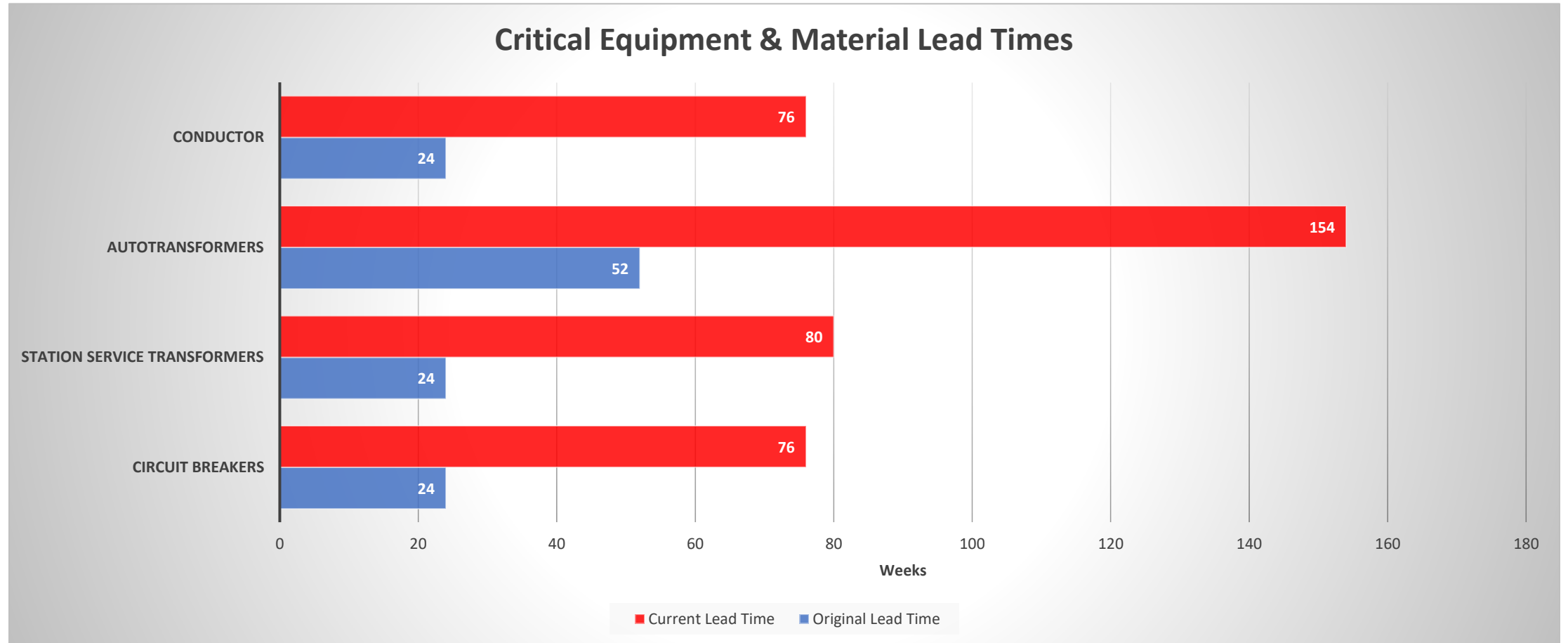
**FBI called to investigate firearms
attacks on Duke Energy substations
in North Carolina; 40K without
power**
-Utility Dive

**Inside Google's push to
nail hybrid work and bring
its 165,000-person
workforce back to the
office part-time**
-Fortune

**18 million people to be
hit by ice storms,
'hazardous winter
weather' this week,
forecasters predict**
-KFOR



Critical Equipment & Materials Lead Times



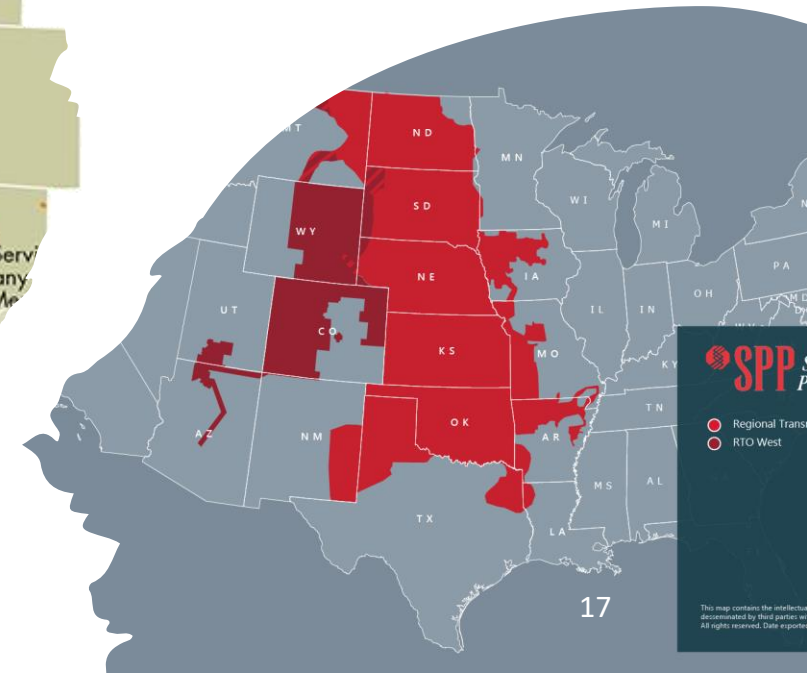
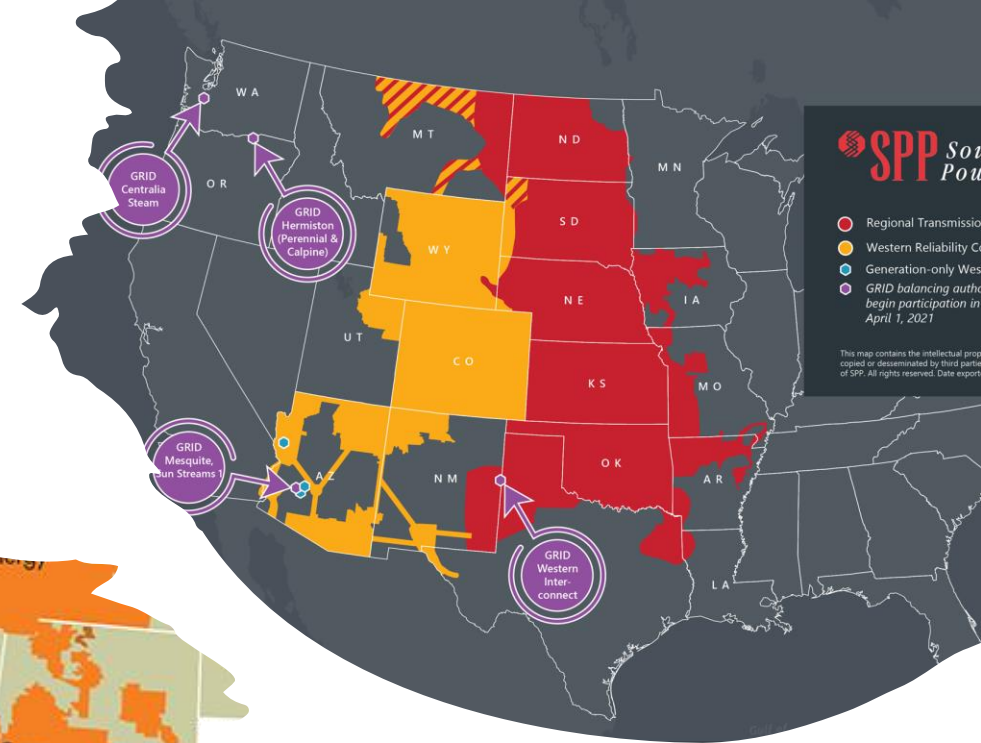
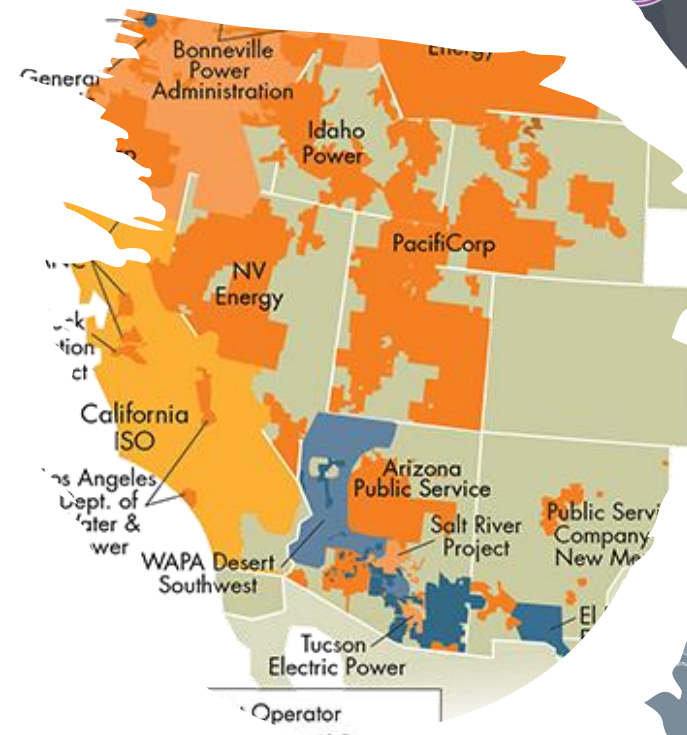
Physical Security

- Ballistic incidents at various asset types are increasing each year.
 - Transmission assets and substations are the top two of eleven asset types experiencing ballistic incidents.
 - Ballistic incidents at substations averaged 10.6 per year from 2016-2021, then increased to 23 in 2022.
- Reported impacts to the grid from substation intrusion and vandalism decreased significantly from 2020 (12) to 2021 (3), but almost doubled when comparing 2020 and 2022 (21).



Energy markets

- Several emerging proposals related to markets activities
- All regions participating in day-ahead market development opportunities



Q&A Session



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Cybersecurity Update

Mike Montoya

Senior Vice President & Chief Information Officer

Annual Customer Meeting

Feb. 8, 2023



Cybersecurity program priorities



IDENTIFY



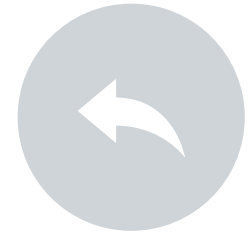
PROTECT



DETECT



RESPOND



RECOVER



Recent cyber attacks

- Infrastructure sector
- Proximity to WAPA
- Diversity of attacks





Current issues

- Exponential technologies
- Supply chain risk
- Regulations and mandates

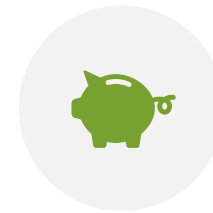




Takeaways



Program
criticality



Program
funding



Mike Montoya

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Q&A Session

Power Forward 2030 **WAPA's New Strategic Plan**

Kerry Whitford
Chief Strategy Officer

Annual Customer Meeting
Feb. 8, 2023





ion/Title
by: David Darmody

Power Forward 2030

Strategic Plan 2023 - 2030



**Western Area
Power Administration**

Strategic planning is crucial

- A vision without a strategy remains an illusion. –Lee Bolman
- A strategy is necessary because the future is unpredictable. –Robert Waterman
- Without strategy, execution is aimless. Without execution, strategy is useless. –Morris Chang



Confirmed
our steadfast
mission,
focused the
vision

Mission

Safely provide reliable, cost-based hydropower and transmission to our customers and the communities we serve.

Vision

Empowering communities, securing a resilient energy future.

Core Values

Listen to understand, speak with purpose. | Seek. Share. Partner.
Respect self, others, and the environment. | Do what is right. Do what is safe.
Be curious, learn more, do better. Repeat. | Serve like your lights depend on it.

Our Value Proposition



Customers

Affordable, low-cost hydropower
Energy delivery and grid reliability
Industry expertise



Stakeholders

Trusted partner-bridge builder



Employees

Rewarding work
Professional growth
Supportive culture and community



Strategic
goals
derived from
value
proposition

Value proposition

Customers

- Affordable, low-cost hydropower
- Reliable energy delivery
- Industry expertise

Stakeholders

- Trusted partner; bridge builder

Employees

- Rewarding work
- Professional growth
- Supportive culture and community

Strategic goals

Safeguard a sustainable energy future

Our energy products and services are of high value and meet the needs of our customers, today and in the future.

Modernize the grid

We enable grid modernization to ensure reliable and resilient energy transmission.

Invest in our Employees

Employees thrive in WAPA's inclusive and diverse workplace and innovative, growth-oriented culture, developing the skills and expertise to succeed in an evolving industry.



18 Months of Significant Collaboration

34

688 Employee survey responses

171 Stakeholder survey responses

29 Stakeholder/customer interviews

11 Internal focus groups

15+ SWOT brainstorm sessions
(with over 65 participants)

10 Let's Talk Strategy sessions

307 Employee participants

76 Stakeholder participants

SWOT Analysis

“Strengths, Weaknesses, Opportunities and Threats”

Internal	<p><u>Strengths (S)</u></p> <p>Customer Focus & Engagement</p> <p>Core Mission</p> <p>Institutional Knowledge</p> <p>Strong Culture</p> <p>Capital Planning</p>	<p><u>Weaknesses (W)</u></p> <p>Uncertain Funding</p> <p>Strategic Prioritization</p> <p>Aging Infrastructure</p> <p>Knowledge Transfer and Retention</p> <p>Resilience Planning</p>
	<p><u>Opportunities (O)</u></p> <p>Markets</p> <p>Emerging Technologies</p> <p>Hydropower Advocacy</p> <p>Transmission Infrastructure Opportunities</p> <p>Stakeholder Partnerships & Relationships</p>	<p><u>Threats (T)</u></p> <p>Drought & Adverse Conditions</p> <p>External Impacts on Rates</p> <p>Cyber & Physical Security Threats</p> <p>Complex & Rapidly Changing Industry</p>



Let's Talk Strategy Sessions – Overall Impression

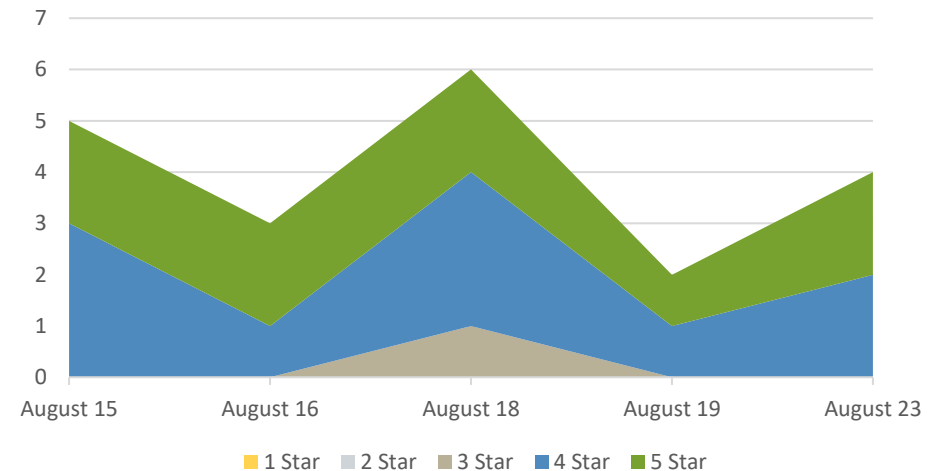
Most Excited:

- Champion/Preserve Hydropower (7)
- Reliable (4)
- Customer Focused (3)
- Mission Focused (3)

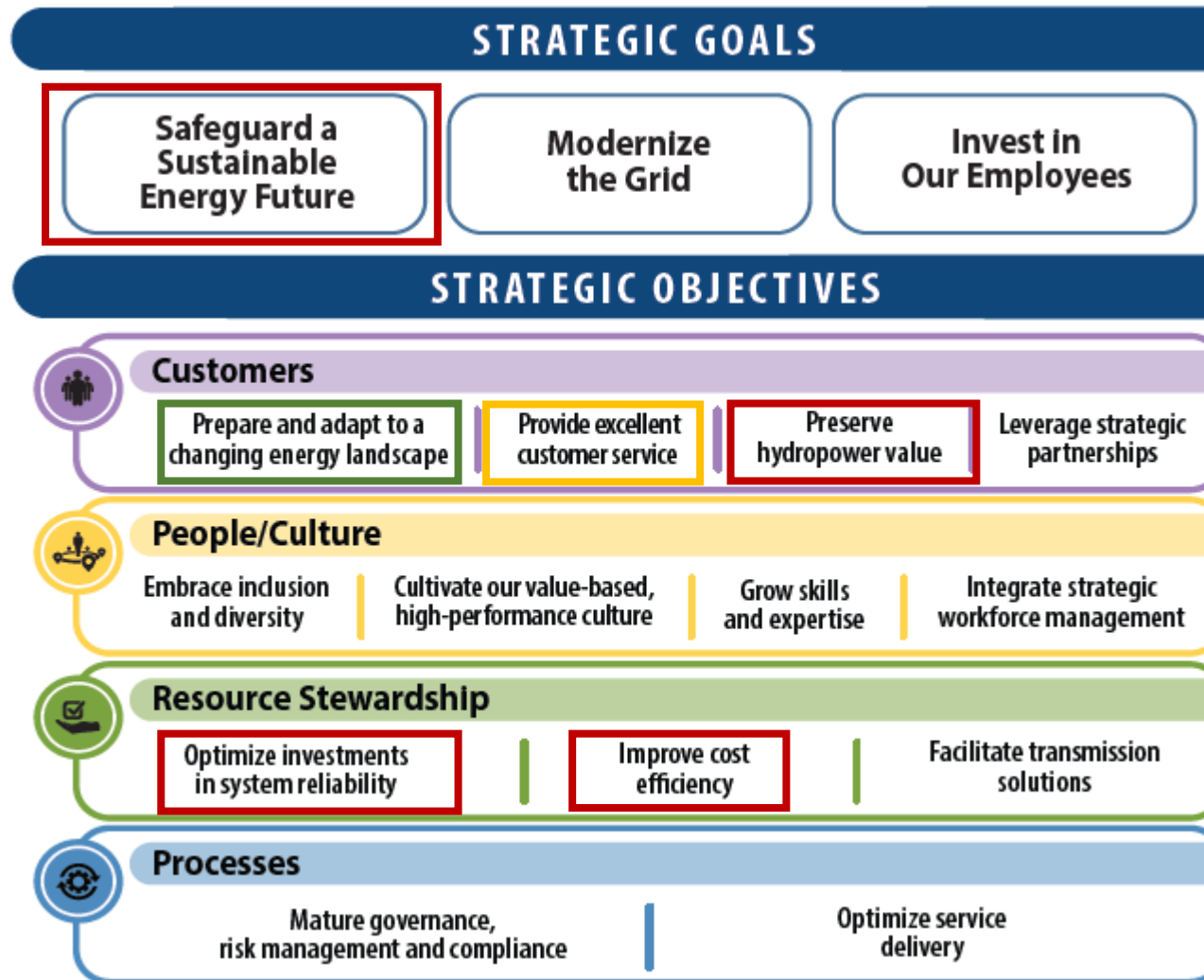
Gaps

- Drought/Climate (4)
- Preference Customers (3)

Customer/Stakeholder, 4.4 Stars



Customer Prioritization



Customers and stakeholders consistently prioritized these areas as their top goal and objectives.



Power Forward 2030 – Sets WAPA's Strategic Destination

STRATEGIC GOALS

**Safeguard a
Sustainable
Energy Future**

**Modernize
the Grid**

**Invest in
Our Employees**

STRATEGIC OBJECTIVES



Customers

Prepare and adapt to a
changing energy landscape

Provide excellent
customer service

Preserve
hydropower value

Leverage strategic
partnerships



People/Culture

Embrace inclusion
and diversity

Cultivate our value-based,
high-performance culture

Grow skills
and expertise

Integrate strategic
workforce management



Resource Stewardship

Optimize investments
in system reliability

Improve cost
efficiency

Facilitate transmission
solutions



Processes

Mature governance,
risk management and compliance

Optimize service
delivery



Strategic destination – 2023 - 2030

Version 1.0, February 2023

Customers

Prepare and adapt to a changing energy landscape

- **Key Strategic Initiative: Udall Effort** – Engage with customers on long-term drought impacts
 - **Initiative Champion:** Colorado River Storage Project Manager

Provide excellent customer service

- **Key Strategic Initiative:** Renew customer relationships and increase understanding of needs
 - **Initiative Champion:** Upper Great Plains Regional Manager

Preserve hydropower benefits and value

- **Key Strategic Initiative:** Educate stakeholders on the value of hydropower
 - **Initiative Champion:** Assistant Administrator for Corporate Liaison



Resource Stewardship

Optimize investments in system reliability

- **Key Strategic Initiative:** Create a strategic grid modernization plan that prioritizes investments
 - **Initiative Champion:** Executive Vice President and Chief Operating Officer

Improve cost efficiency

- **Key Strategic Initiative:** Optimize FTE resource utilization
 - **Initiative Champion:** Chief Financial Officer



2030 Strategic Plan Development



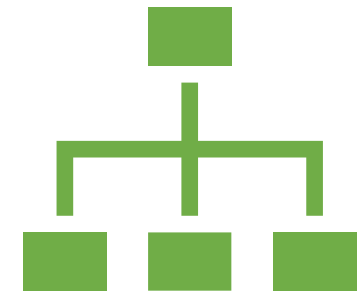
Mission &
Vision



Assessment
& Analysis



Strategy
Formulation



Measurement
and Action
Planning



Q&A Session



Kerry Whitford

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Coffee Break & Networking

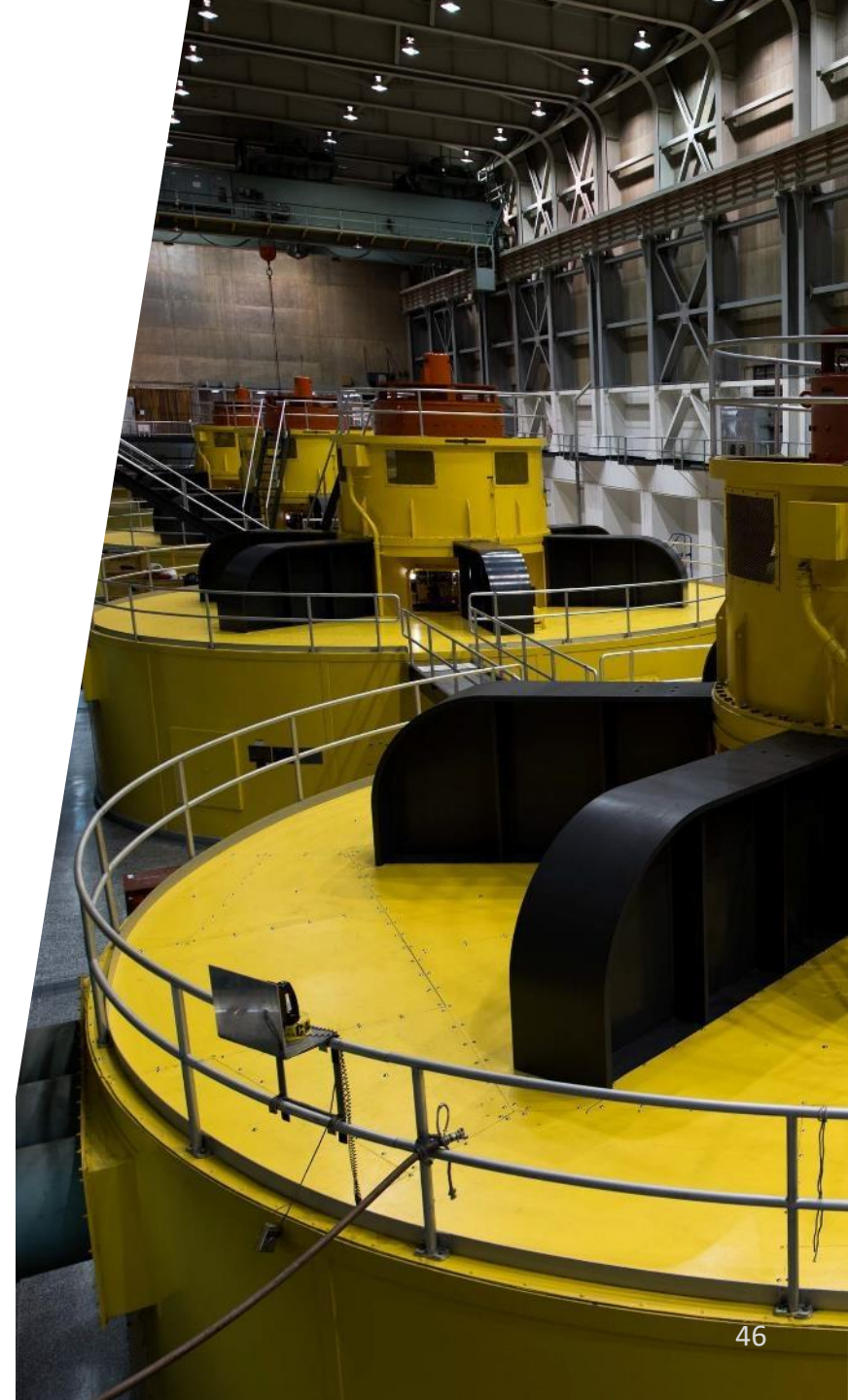
Please return by 10:15 a.m. MST

State of WAPA Regions

All WAPA Regional Managers

Annual Customer Meeting

Feb. 8, 2023



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Q&A Session

Transmission Infrastructure Program Update

Paul Schwabe

Senior Vice President & TIP Manager

Annual Customer Meeting

Feb. 8, 2023



TIP Portfolio Strategy



Transmission At the Core of TIP's Mission

- Brattle est. ~\$18 to \$25B in annual new transmission nationally through 2030 (pre-IRA, not all TIP eligible)
- CAISO projects +\$30B in and new upgraded high voltage bulk transmission by ~2040 in CA alone



Supplemented by Energy Storage and Related Facilities

- BNEF forecast 30GW/111GWh in new U.S. energy storage by 2030
- Smaller, shorter timelines, and more transactional volume



Expanding to New Opportunities and Needs

- “Offshore onshore” grid integration
- Long-duration energy storage (pumped hydro, compressed air energy storage, diversity in battery chemistry and duration)

Forming a diversified, steady, market-relevant, and customer-valued loan portfolio



Power Forward 2030: Resource Stewardship (TIP)

Objective 3.3

Facilitate transmission solutions.

We leverage federal and non-federal financial and technical resources to expand and **modernize the grid.**

Intended Results:

- Through the Transmission Infrastructure Program, we provide **low-cost capital** through WAPA's \$3.25 billion borrowing authority to facilitate the delivery of renewables to the grid.
- We facilitate development of **new and upgraded transmission lines and related facilities** to strengthen the grid.
- Our **expertise and experience** contribute to effective transmission solutions for the West.

Key Strategic Initiative:

- We target and facilitate the development of transmission and related facilities, **including energy storage**, that **directly support the grid and customer needs.**
 - Initiative Champion: Transmission Infrastructure Program Manager
 - Initiative Support: Desert Southwest Regional Manager

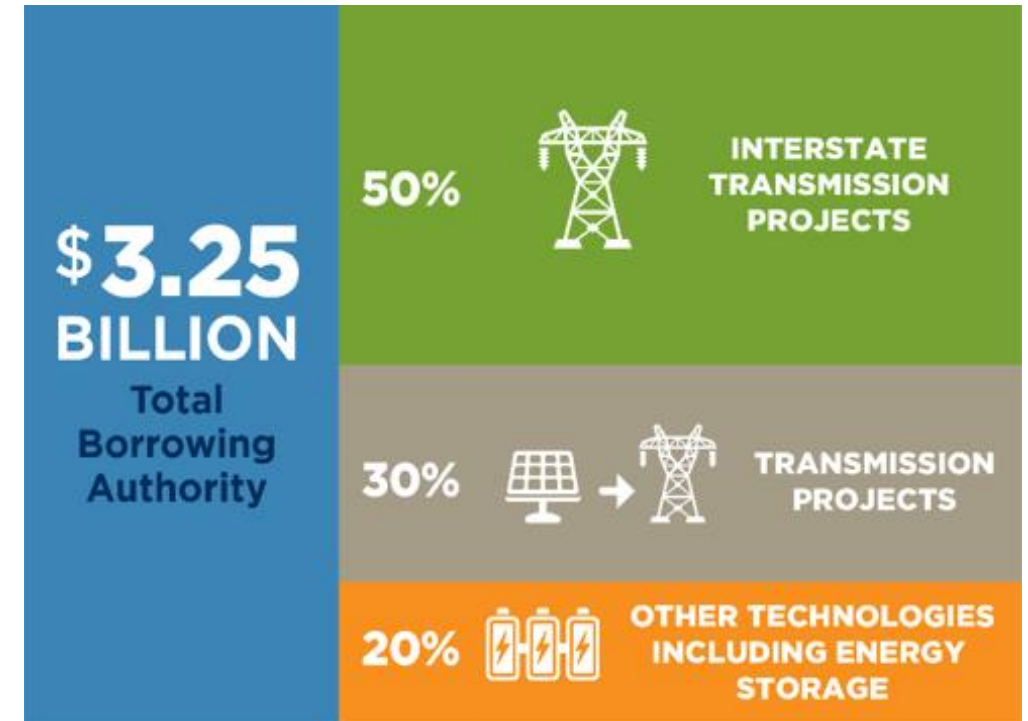


Red-tailed hawk near Rogers-Coolidge line, AZ
Photo by Becky Hopkins
Environmental Specialist

TIP FY23 Focus Areas

- Strengthening existing and expanding new partnership opportunities to grow TIP pipeline
- Facilitating Mead expansion statement of interest (SOI) responses and follow-on activities
- Adapting to finance industry changes from IRA and higher interest rate and inflationary environment
- Revalidating TIP portfolio allocations including evaluation of a customer nexus target
- Improving TIP operations and efficiencies
- Enhancing TIP informational and marketing materials
- Meeting with customers!

Revalidating Project Portfolio Target Allocations Including Evaluation of Customer Nexus Target



Q&A Session

A dramatic landscape photograph featuring a dirt road that curves through a green, hilly field. On the left, a tall wooden utility pole stands prominently. The sky is filled with large, textured clouds, with a vibrant orange and yellow glow from the setting or rising sun illuminating the scene. The overall mood is serene yet powerful.

Paul Schwabe

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Mission Focused Financing:

Providing Stability in the Decade Ahead

Michael D. Peterson
Senior Vice President & Chief Financial Officer

Annual Customer Meeting
Feb. 8, 2023



A close-up of a car's side-view mirror. The mirror's frame is dark and curved. The reflection inside the mirror shows a tall, lattice-structured power line tower against a sky with a gradient from orange at the bottom to blue at the top. Several power lines stretch across the reflection. To the right of the mirror, a portion of the car's body and a blurred background of a body of water and a distant structure are visible.

Reflecting on 2022

*WAPA's operating & financial performance was solid,
despite challenges from drought*

Progress realized during 2022

Leveraging financial discipline to meet WAPA's financial needs in difficult times



OCFO Department Staffing

Rebounded from 24.6% vacancy rate in mid '22 to realize full staffing
Modified org structure prioritizes development & succession plans
Championing diversity with 60% female & 30% minority staffing



Budget & Analysis

Revised PPW reserves target & secured \$1 billion in additional funds
Deployed project level budgeting to improve plan execution
Implemented standardized budgeting beginning w/ FY23 budget cycle



Financial Systems

Robotic Process Automation of acts. payable & emp. reimbursements
Successful transition of WAPA's budget system, BFIT, to cloud
Early implementation of Treasury's G-Invoicing payment system



Finance & Accounting

FY21 financial reporting received an unqualified audit opinion
FY22 financial audit scheduled for completion in early March
FY22 Financial transparency & narrative posted to *The Source*



Governance & Policy

Completed Biennial Review of WAPA's pricing of materials & services
Strengthened controls in WAPA's financial reporting system, FIMS
Proactive administration of WAPA financial policies for risk mitigation



WAPA's use of IIJA funding paved the way for Omnibus

Funding a mission-critical need with proper governance, timely deployment and full transparency

IIJA - \$500 million of additional funding for PPW reserves, authorized Nov. 2021

- FUNDING PARAMETERS: Provided \$500M of reimbursable funding for WAPA's PPW reserves to be used exclusively for PPW costs incurred throughout WAPA's footprint
- SCOPE OF FUNDING: Congress directed WAPA to address PPW funding needs for FY 2022 and FY 2023
- IMPLEMENTATION: IIJA passed on Nov. 15, 2021, with implementation by WAPA on Jan. 1, 2022
- GOVERNANCE: IIJA mandated oversight payments of \$500k to DOE IG and DOE OCFO (\$1 million total)
- TRACKING: WAPA established 2 unique DOE fund codes (CROM and CRSP) to track execution
- ALLOCATION: \$85 million to CRSP's Basin Fund (which is a revolving facility) for PPW costs incurred, with the balance allocated on a first-come, first-served basis in CROM
- EXECUTION: \$382 million, or 76% of total funding, was obligated between Jan. 1 and Sep. 30, 2022
- PROJECTIONS: WAPA forecasts the balance of \$118 million to be obligated before Sep. 30, 2023
- RETURNS TO TREASURY: \$260 million, which is 52% of total IIJA funding and 72% of FY2022 execution
- TRANSPARENCY: Link to IIJA funds reconciliation for FY2022 posted on [the Source](#)

2023 Omnibus Appropriations Bill - \$520 million of supplemental funding for PPW reserves, authorized Dec. 2022



Risk management with DOE, OMB and Congress

Communicating the operational impacts of WAPA's funding needs not being met

Impacts of Insufficient Funding for PPW Program:

- WAPA default on contractual power delivery commitments,
- WAPA's customers would need to find alternate sources for power,
- Potential for sharp increase in pricing and uncertain availability of power for WAPA's customers,
- WAPA could face fines and penalties for defaulting on contractual obligations,
- Puts WAPA's reputation and participation in markets at risk, and
- Jeopardizes the ability of WAPA to repay its federal debt obligations should customers be compelled to seek more reliable alternatives.





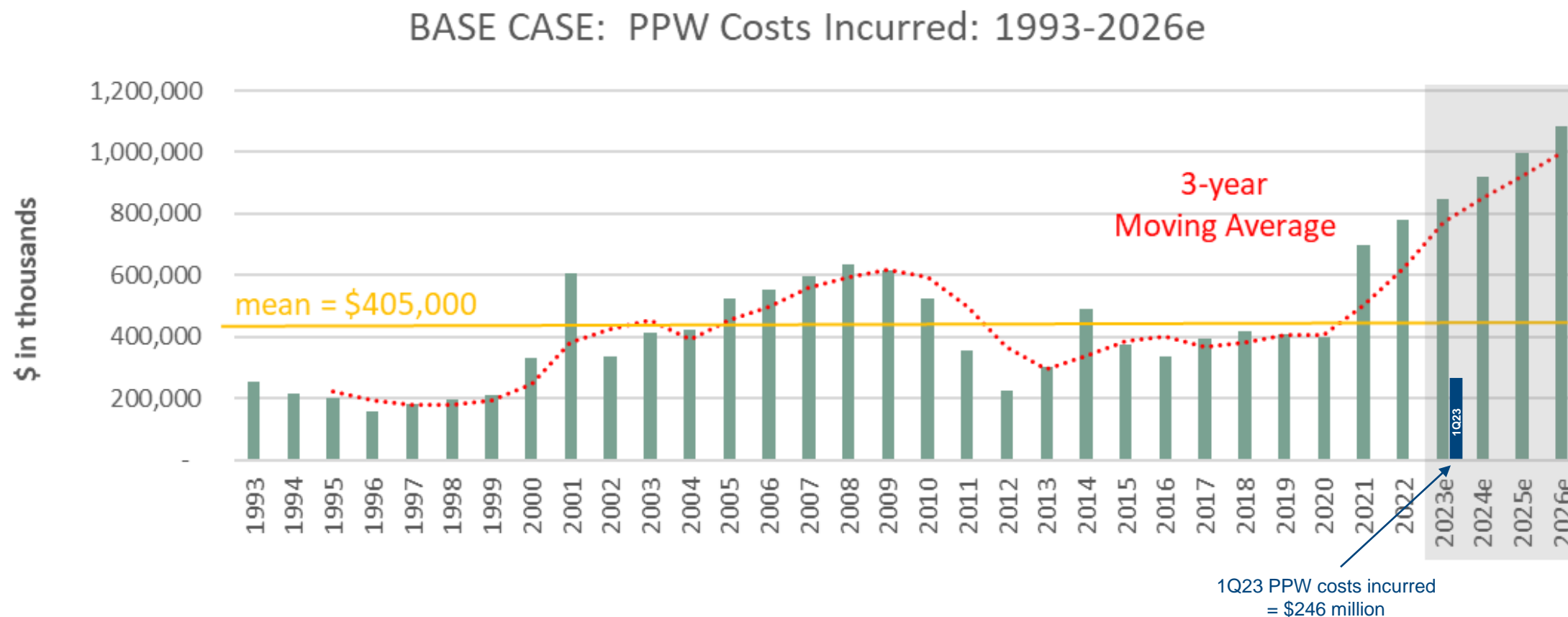
Funding tomorrow's PPW needs

*WAPA's funding requests and
data-driven PPW reserves target assessment*



Historic costs illustrate the severity of drought ahead

Extreme drought combined with system-wide impact compounds financial need



WAPA's data-driven PPW reserves target assessment

Increase is attributable to greater quantities of MWh at higher prices per MWh

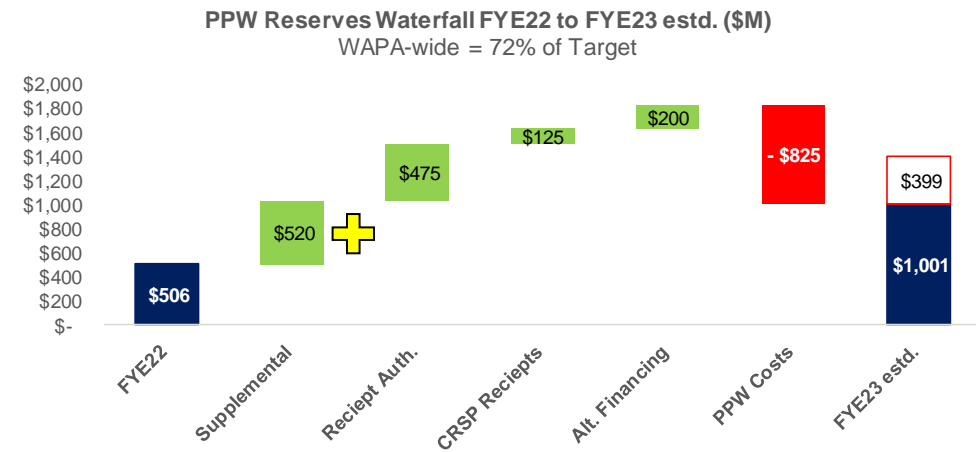
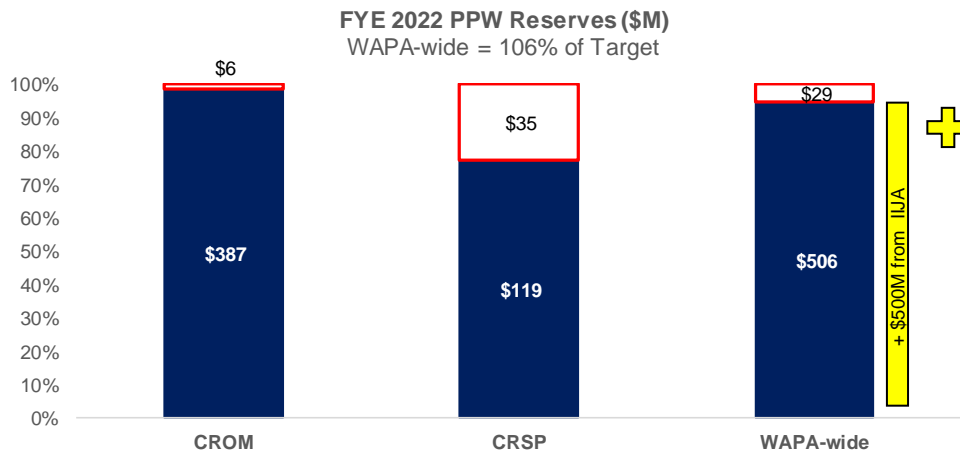
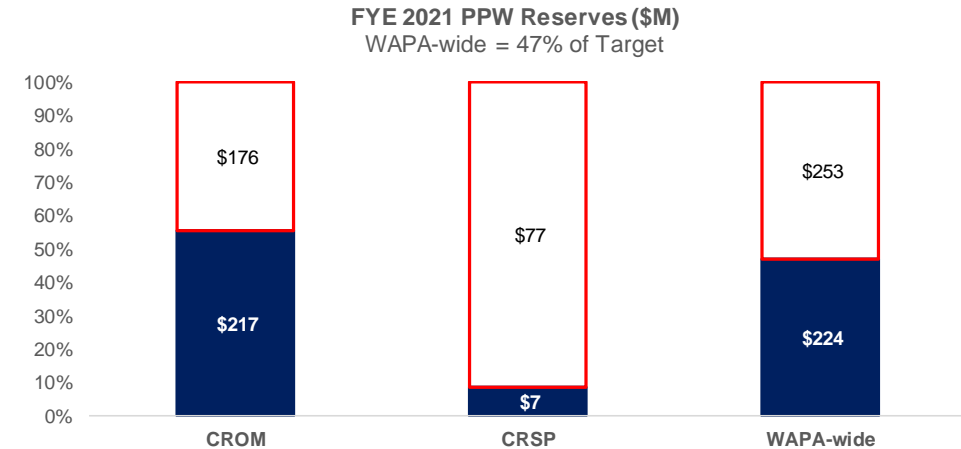
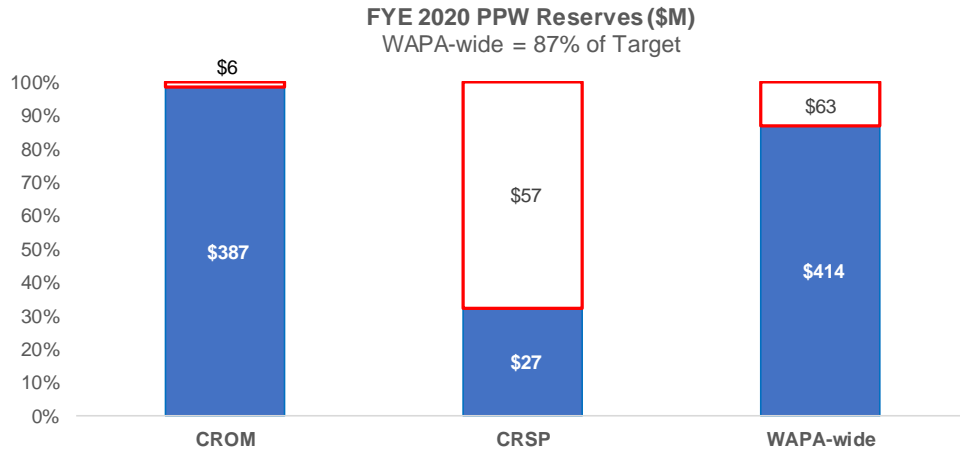
WAPA's PPW reserves need assessment is based on 30+ years of realized PPW cost data across WAPA's power systems. Based on this assessment, WAPA has determined that to calibrate PPW reserves to prevailing power market conditions, targeted PPW reserves should **increase from \$477 million to \$1.4 billion**. Key drivers for the revising the target balances established in 2015/2016 include:

- Need to mitigate against multiple power systems being impacted by adverse PPW conditions simultaneously,
- Receipt authority constraints spanning multiple years creating the need for increased reserves,
- Using 30+ years of actual PPW cost experience indicates greater risk mitigation is necessary to account for the high level of volatility seen in WAPA's PPW program and provide an additional level of resilience for unforeseen climate and market events,
- Without supplemental funding from the Omnibus Appropriations Bill and increased receipt authority in FY24, PPW reserve balances were projected to fall below \$300 million by mid-year FY 2023.



PPW reserves FY 2020 to FY 2023e

Funding from IJA and 2023 Omnibus Appropriations Bill offsets rising PPW costs



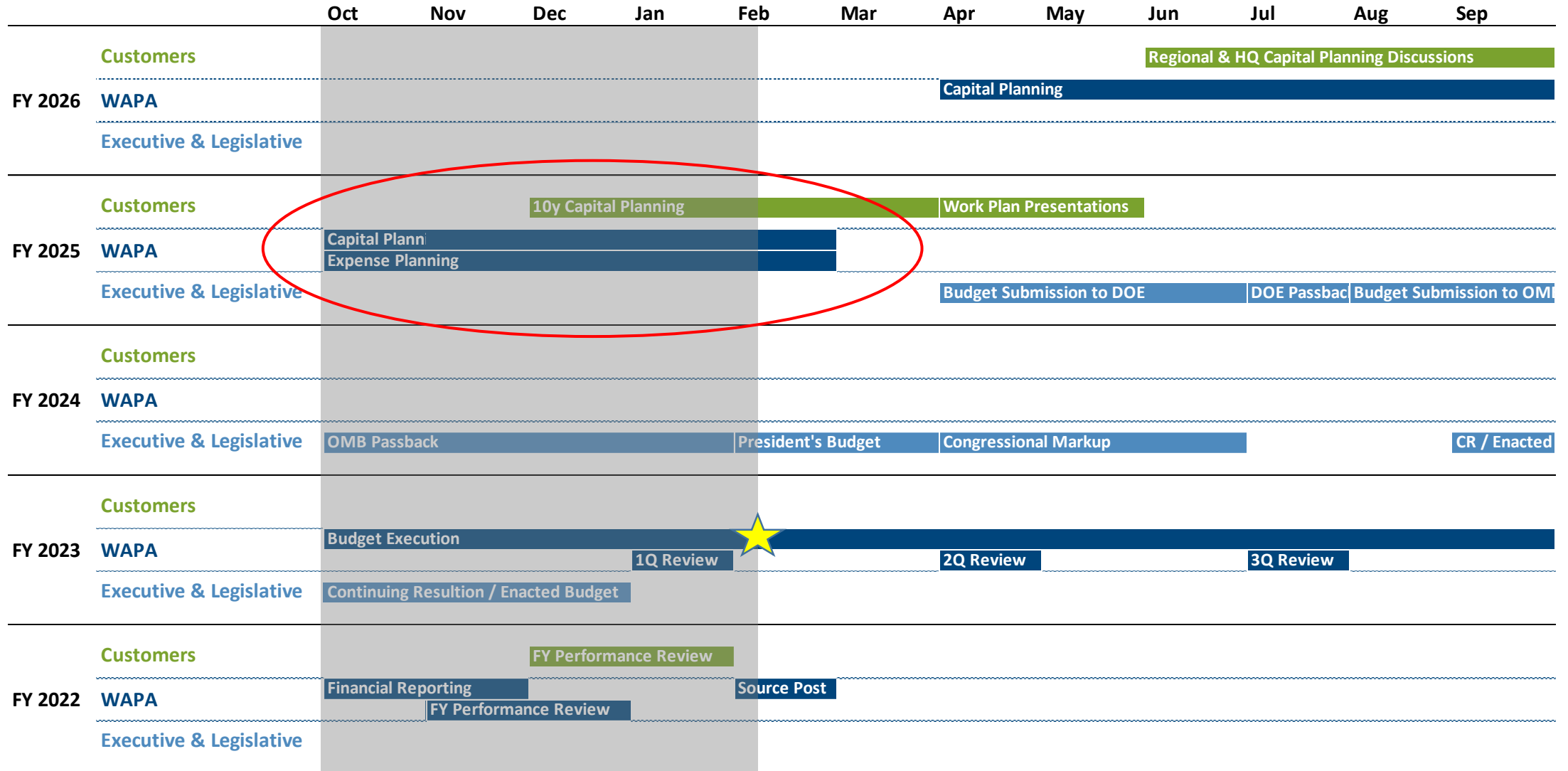
An aerial photograph of a herd of wildebeest crossing a river. The animals are silhouetted against the water, and their striped shadows are clearly visible on the surface. The text is overlaid on the left side of the image.

WAPA's Budget Process

Focusing on priorities and avoiding distractions

The many stages of a budget

Formulation, submission, approval, execution and performance review



FY 2025 Budget guidance

Formulation, submission, approval, execution and performance review



FTE & Labor

FTE

- Remain flat at 1,521

Labor

- Assume full FTE execution
- Apply data-driven labor rates
- Wage Board (WB) & Administratively Determined (AD) salaries determined by region
- Cash awards based on DOE guidance
- OT and incentives treated as discretionary



Capital

Evaluation

- Additions & Major Upgrades require Project Initiation Documents (PIDs)
- ≥\$500K projects loaded into budget system

Feasibility assessment

- Requests >15% of historical execution require further justification

Project funding

- Appropriation assumptions will be consistent with TCC process
- Consistent with rate, cash flow estimates and customer coordination



Discretionary & Other

Discretionary O&M and Indirect

- Increases expected to be offset in discretionary spend areas
- Limited to historical expenditures + 15%
- Travel & Training allowable at FY24 levels

Other considerations

- Rate impact assessment
- Work for others revalidation
- Safety, physical, & cybersecurity needs remain a top priority
- PPW should be base-case assumptions for pricing and volume

FY 2024 WAPA-wide workplan

Financial discipline to mitigate the challenges of a difficult operating environment

FY 2017-2024 Summary

3.0% annual growth (CAGR)

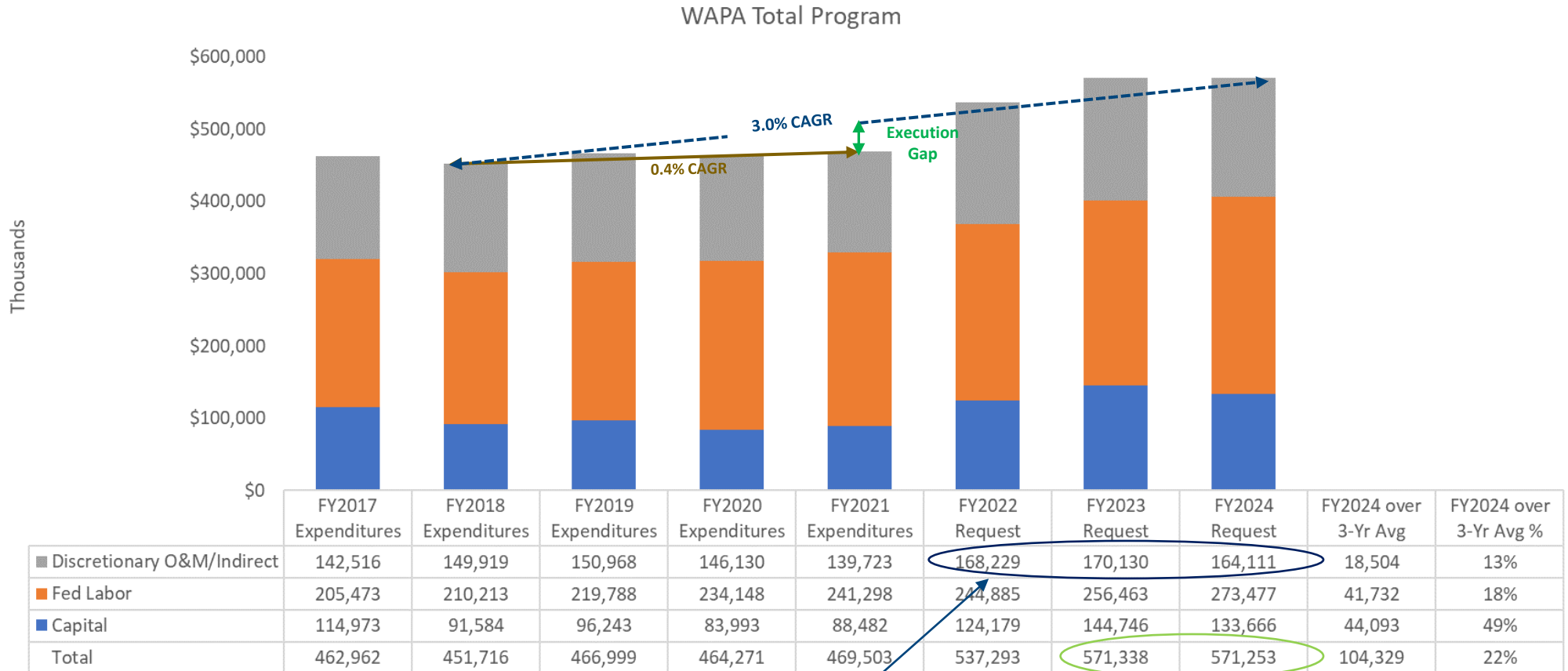
3 budget categories:

- a) Capital (approved 11/21)
- b) Labor
- c) Discretionary

Execution Gap = \$ Amount
by which budget plans
exceed historical expenditures

FY 2023-2024 Summary

- a) Capital = -7.7%
- b) Labor = 6.6%
(a + b = 1.5%)
- c) Discretionary = -3.5%
- d) **Total = 0.0%, or -\$85k**



Holding the line on
discretionary spending for
3 consecutive years



Labor: FY 2013-2025e trends

Growth in benefits continues to drive rising labor expense

FY13 thru FY22 Labor Growth

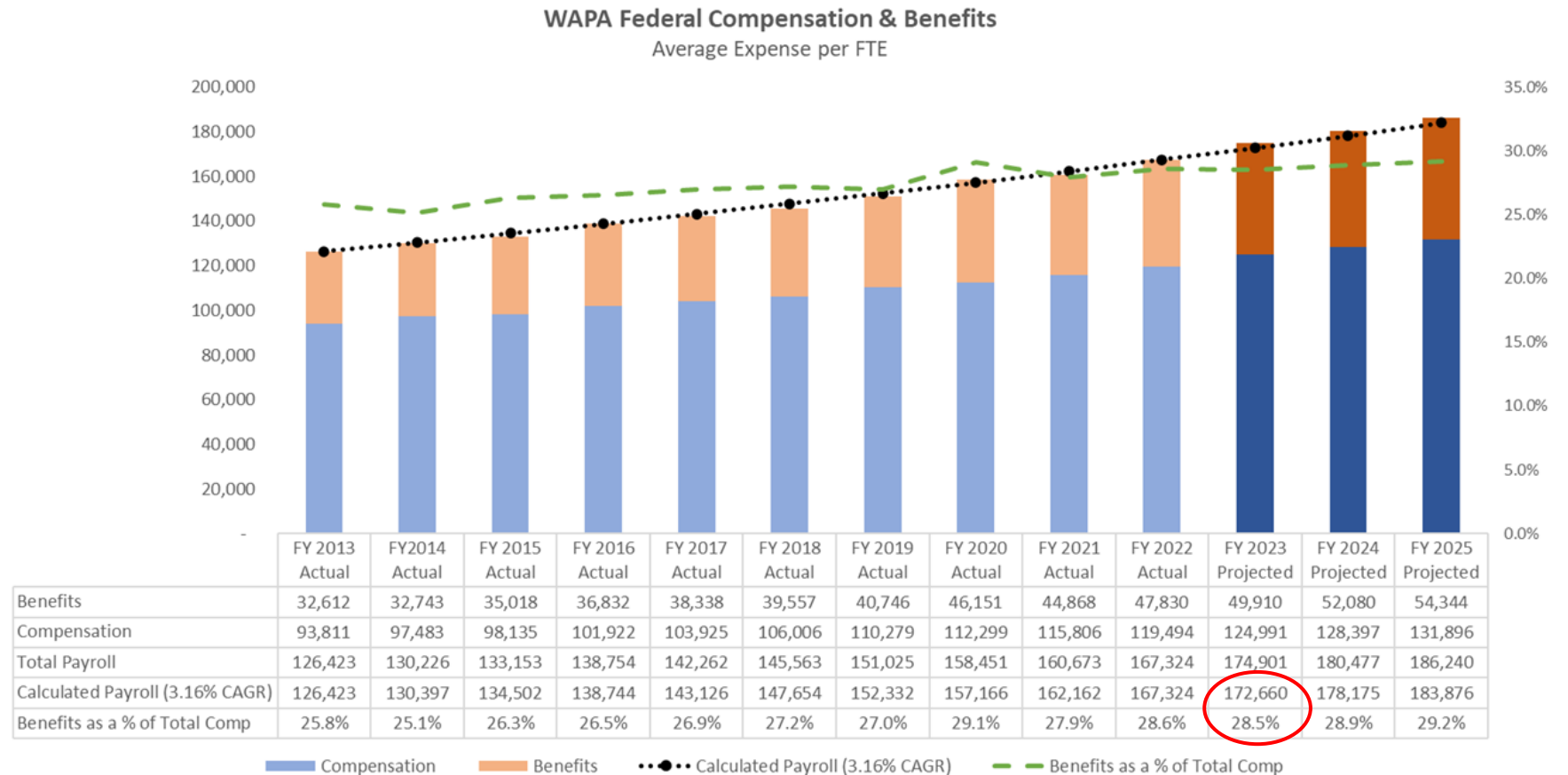
- 1) Benefits = 4.35%
- 2) Salary & Wages = 2.73%
- 3) Total Labor = 3.16%

Key Drivers of Growth

- a) Benefits
- b) Locality Pay
- c) Cost of Living Adjustments
- d) Merit Increases & Promotions

Basis for FY25 Labor Rates

- WAPA's FY25 labor was developed using FY13-22 growth trends and factored in known and/or anticipated compensation increases that deviated from the trend
- In FY22, WAPA's benefits as a % of total compensation were 28.6%



Capital: Formulation, performance & optimization

Multi-functional peer reviews, feasibility assessments & rate alignment

10-year plan totals

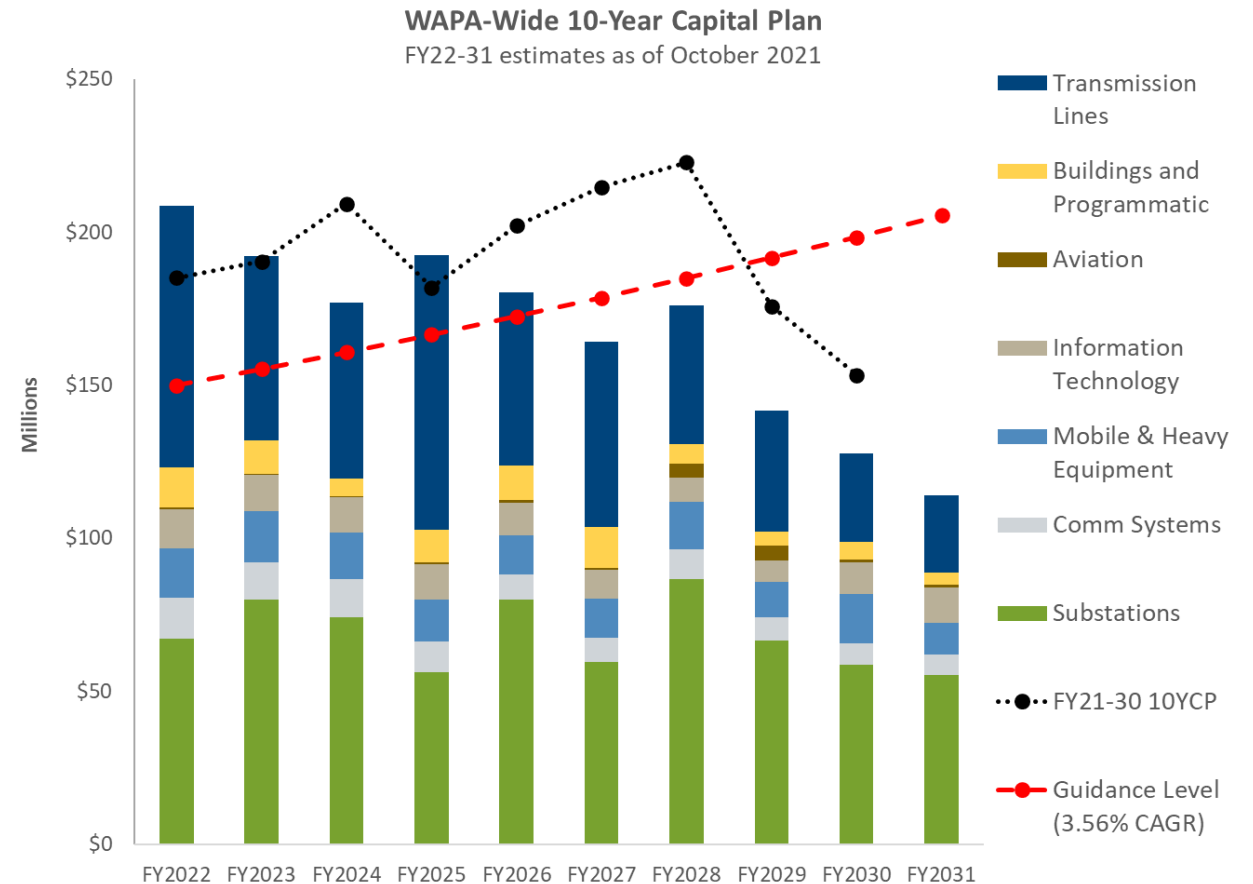
- \$2B investment (including SLTP)
- Decrease of \$242M from previous plan
- FY22 – 13% above previous plan
- FY24 – 15% lower than previous plan

Rate window

- Rate window is 3% lower than previous plan

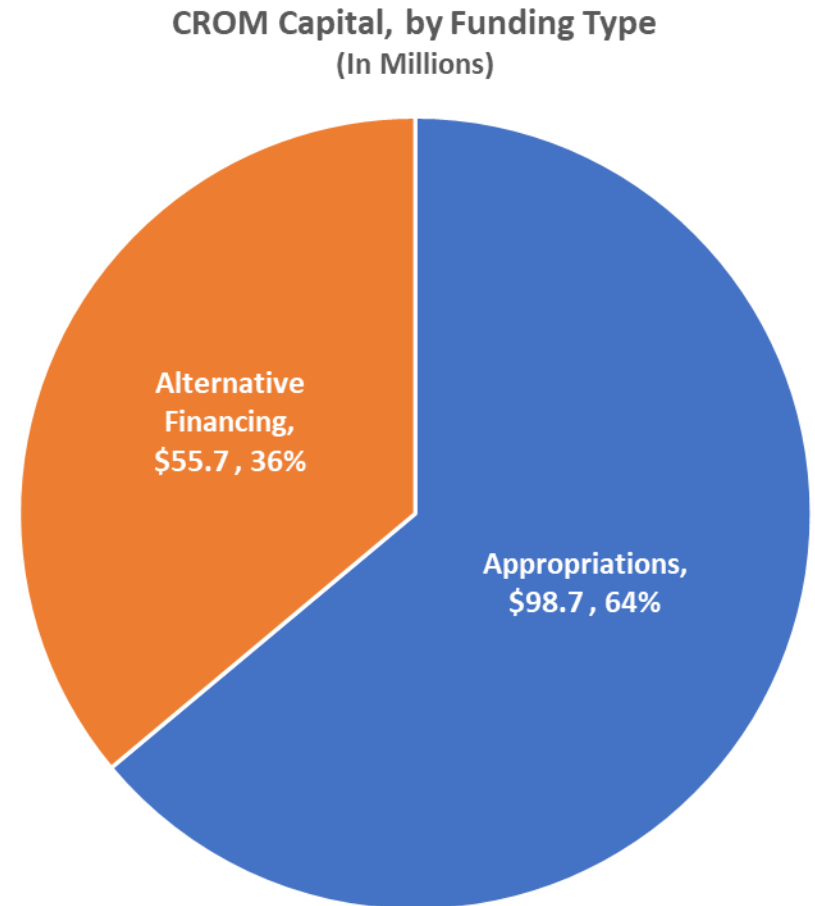
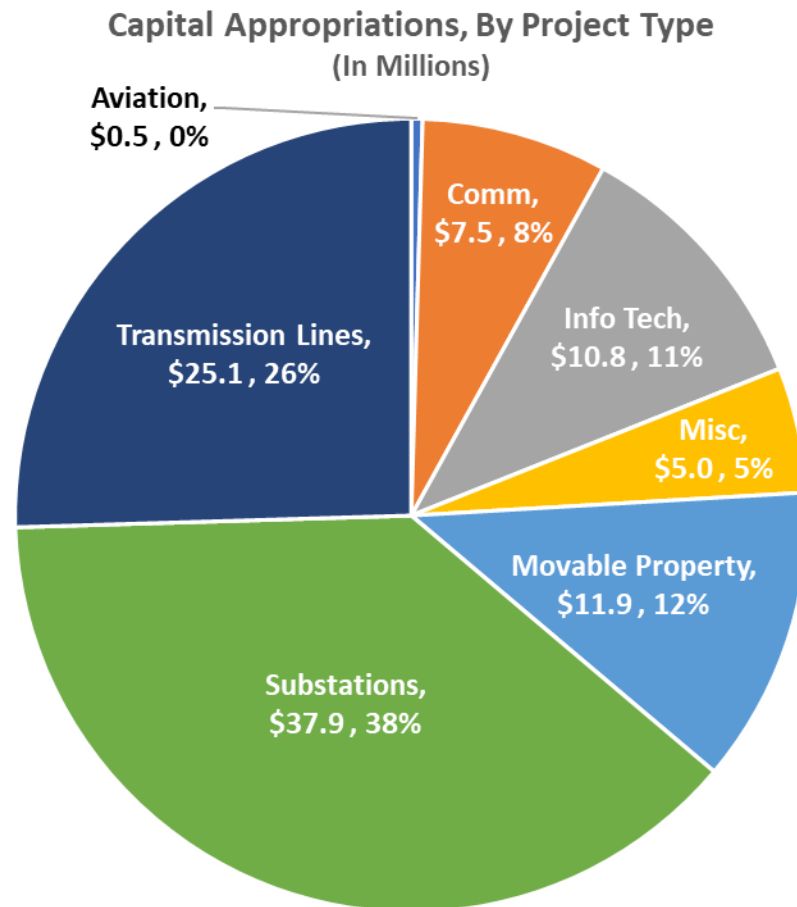
Appropriations

- Consistent with President's FY 2022 Budget



Capital detail: Appropriations project & funding types

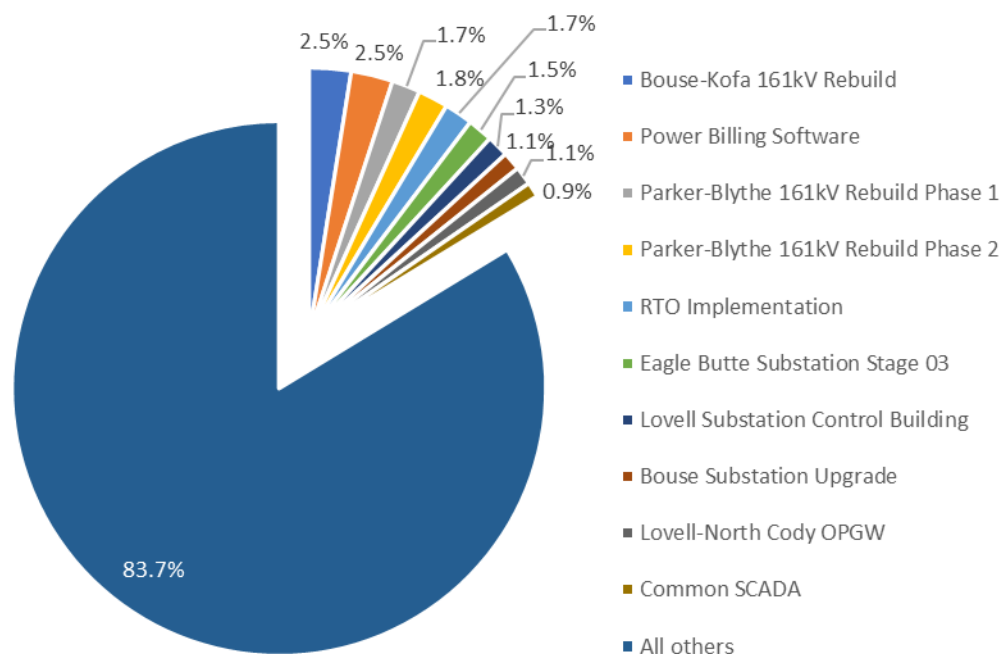
Transmission lines & substations garner a majority of appropriations (nearly 2/3^{ds})



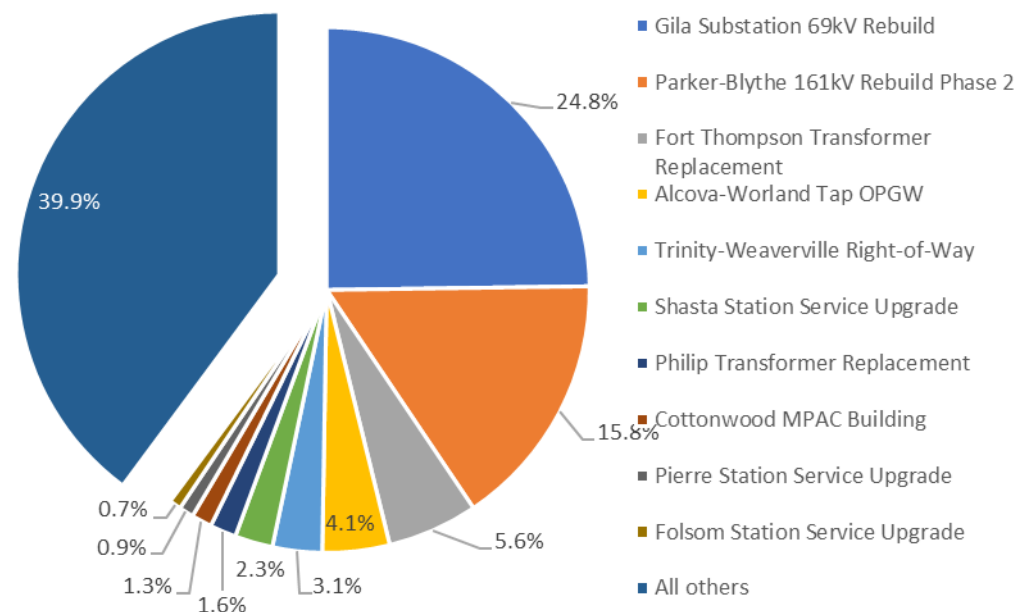
Capital detail: Appropriations & alternative financing

Appropriations are well diversified while Alternative Financed are more top heavy

FY24 Top 10 Appropriated Projects = 16.3%
(total = \$98.7 million)

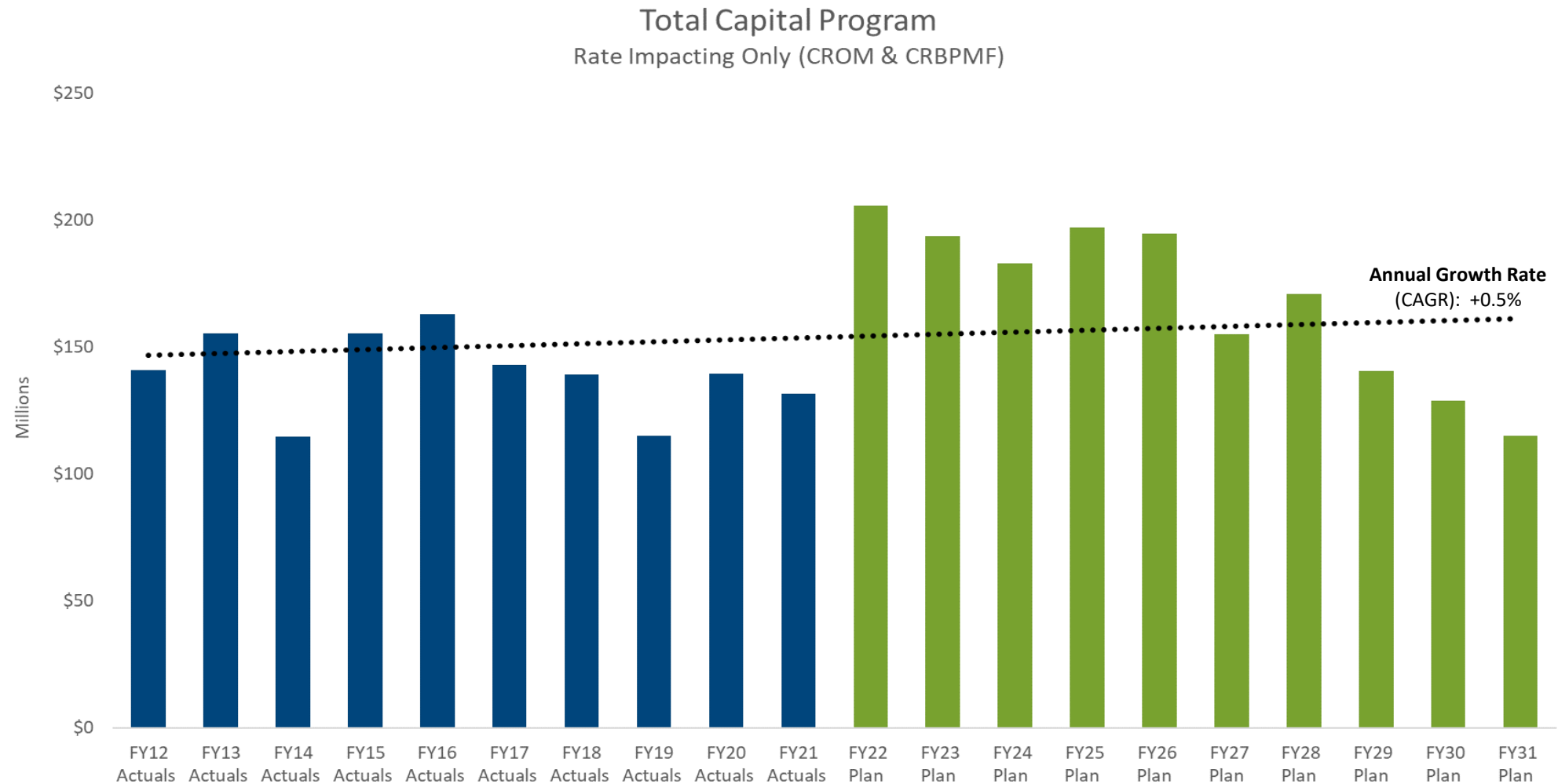


FY24 Top 10 Alternative Financed Projects = 40.1%
(total = \$55.7 million)



10-year capital plan

Using historic execution and trend analysis to frame forward projections



Discretionary: FY 2024 workplan

Prioritizing must-have budget items at the expense of nice-to-haves

FY 2017-2024 Summary

1.9% annual growth

6 budget categories:

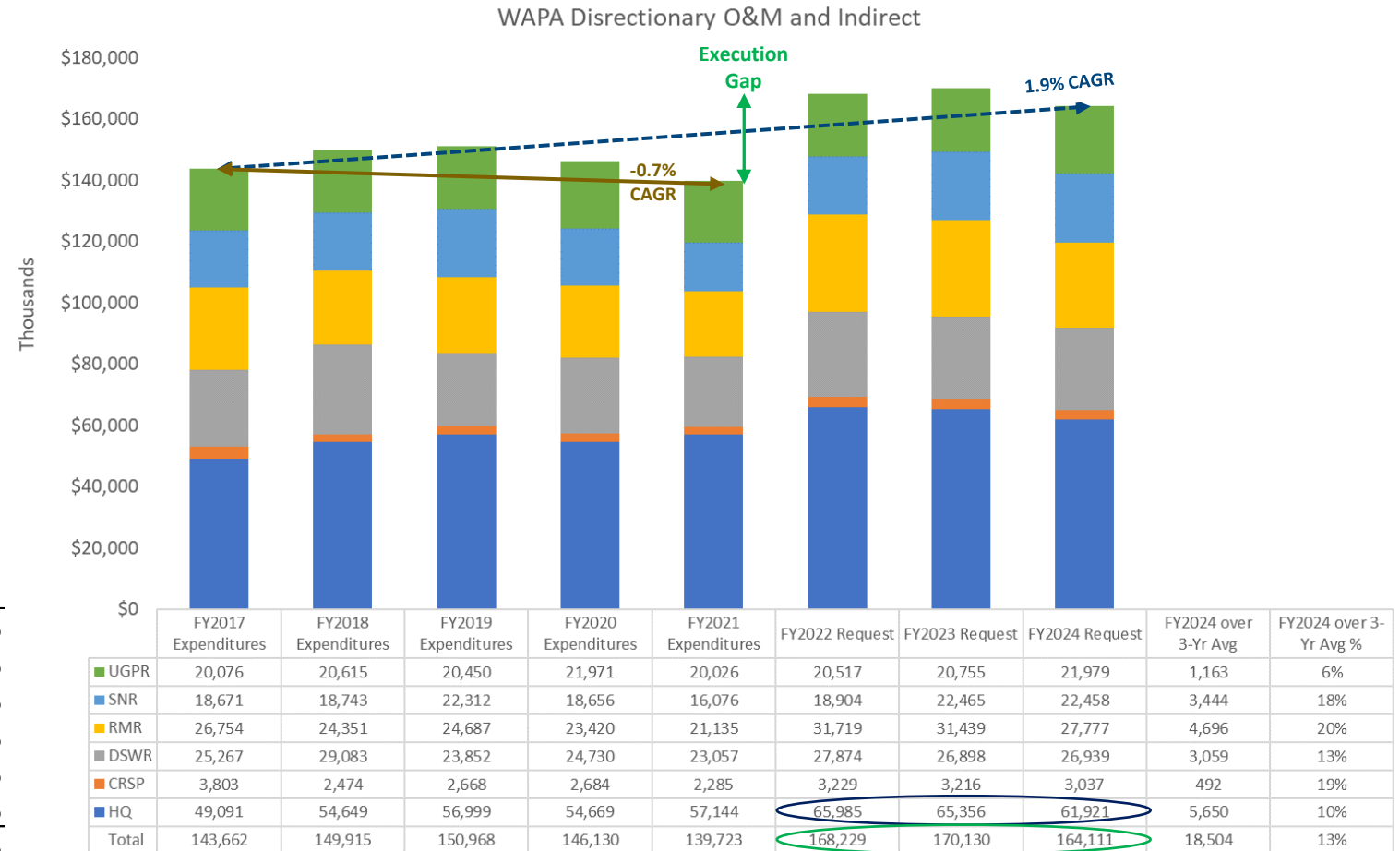
a) 5 Regions

b) HQ

Execution Gap = Budget plans exceed historical expenditures

Compound Annual Growth Rate

	FY2017-21	FY2017-24	FY2023-24
UGPR	-0.1%	1.3%	5.9%
SNR	-3.7%	2.7%	0.0%
RMR	-5.7%	0.5%	-11.6%
DSWR	-2.3%	0.9%	0.1%
CRSP	-12.0%	-3.2%	-5.6%
HQ	3.9%	3.4%	-5.3%
Total	-0.7%	1.9%	-3.5%



Q&A Session



Michael D. Peterson

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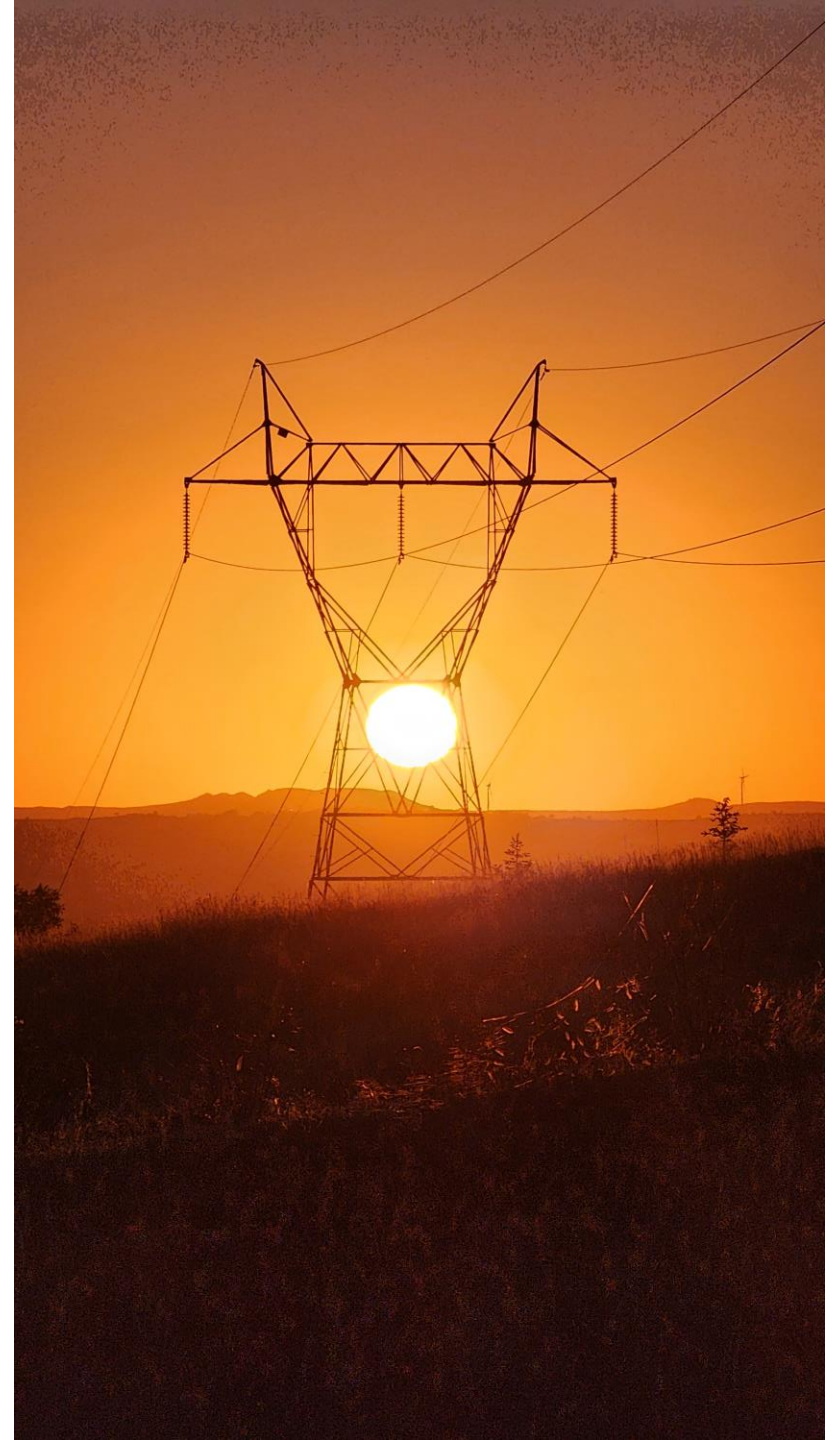
Close of Formal Meeting

Tina Ko

Executive Vice President & Chief Operating Officer

Annual Customer Meeting

Feb. 8, 2023



Thank you for attending Western Area Power Administration Annual Customer Meeting

